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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/001,586 | 10/31/2001 | David J.C. Johnson | 10013442-1 | 1948 |

7590 03/26/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
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EXAMINER

ELMORE, REBA I

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2187 | 3 |

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/001,586 | JOHNSON ET AL. |
| | Examiner | Art Unit |
| | Reba I. Elmore | 2187 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 October 2001.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

1. Claims 1-4 are presented for examination.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Dean et al.

Dean teaches the invention (claim 1) as claimed including a method of evicting an entry in a cache memory comprising:

setting a bit to a first logical state when the entry is accessed as setting the age bits to NEW (e.g., see paragraph 0038);

setting the bit to a second logical state as setting the age bits to a minimum value (e.g., see paragraph 0038); and,

evicting the entry when the bit is at the second logical state after at least a predetermined time after being set to the second logical state as using the aging of the bits to determine the next line to evict (e.g., see paragraph 0038) with the predetermined time relating to a time stamp or age value (e.g., see paragraphs 0024-0025).

Dean teaches the invention (claim 2) as claimed including a method of evicting an entry in a cache memory comprising:

setting a bit to a first logical state when the entry is written as setting the age bits to NEW (e.g., see paragraph 0038);

setting the bit to a second logical state as setting the age bits to a minimum value (e.g., see paragraph 0038); and,

evicting the entry when the bit is at the second logical state after at least a predetermined time after being set to the second logical state as using the aging of the bits to determine the next line to evict (e.g., see paragraph 0038) with the predetermined time relating to a time stamp or age value (e.g., see paragraphs 0024-0025).

Dean teaches the invention (claim 3) as claimed a method of evicting at least one entry in a set of entries in a cache memory comprising:

setting a bit to a first logical state when an entry corresponding to an index which is part of the cache address (e.g., see Figure 1) is accessed as setting the age bits to NEW (e.g., see paragraph 0038);

setting the bit to a second logical state as setting the age bits to a minimum value (e.g., see paragraph 0038); and,

evicting at least one entry corresponding to the index when the bit is at the second logical state after at least a predetermined time after being set to the second logical state as using the aging of the bits to determine the next line to evict (e.g., see paragraph 0038) with the predetermined time relating to a time stamp or age value (e.g., see paragraphs 0024-0025).

Dean teaches the invention (claim 4) as claimed including a method of evicting at least one entry in a set of entries in a cache memory comprising:

setting a bit to a first logical state when an entry corresponding to an index which is part of the cache address (e.g., see Figure 1) is modified as setting the age bits to NEW (e.g., see paragraph 0038);

setting the bit to a second logical state as setting the age bits to a minimum value (e.g., see paragraph 0038); and,

evicting at least one entry corresponding to the index when the bit is at the second logical state after at least a predetermined time after being set to the second logical state as using the aging of the bits to determine the next line to evict (e.g., see paragraph 0038) with the predetermined time relating to a time stamp or age value (e.g., see paragraphs 0024-0025).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (703) 305-9706. The examiner can normally be reached on M-TH from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor for AU 2187, Donald Sparks, can be reached for general questions concerning this application at (703) 308-1756. Additionally, the official fax phone number for the art unit is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center receptionist whose telephone number is (703) 305-3800/4700.

March 21, 2004



REBA I. ELMORE
PRIMARY EXAMINER